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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/552,802

10/11/2005

Bernhard Gleich

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04/29/2009

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

CHEN, VICTORIA W

ART UNIT

PAPER NUMBER

3739

MAIL DATE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/552,802	<b>Applicant(s)</b> GLEICH ET AL.	
	<b>Examiner</b> VICTORIA W. CHEN	<b>Art Unit</b> 3739	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 October 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/1/07</u> .  | 6) <input type="checkbox"/> Other: _____                          |

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## **DETAILED ACTION**

### ***Oath/Declaration***

It does not state that the person making the oath or declaration acknowledges the duty to disclose to the Office all information known to the person to be material to patentability as defined in 37 CFR 1.56.

The declaration does not have the correct statement with respect to the duty to disclose. The correct statement is –I acknowledge the duty to disclose information which is material to patentability of this application in accordance with Title 37, Code of Federal Regulations Section 1.56.—

### ***Information Disclosure Statement***

The information disclosure statement filed 6/1/07 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

### ***Specification***

The disclosure is objected to because of the following informalities: Claim numbers are referenced within the specification, for example, pg. 3, line 19 and line 24. Referencing of the claim numbers within the specification is improper because claim numbers can be canceled or changed during prosecution. Other instances where claim numbers are referenced in the specification should also be removed.

Appropriate correction is required.

***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 2b, 1. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the permanent magnet and table must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the

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renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the arrangement" in ln. 6. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites "which region of action is situated outside the space surrounding the arrangement having means for generating the magnetic field" in ln. 6-7. However, all space outside the arrangement is considered space which is surrounding the arrangement, which makes the claim language unclear as to where the region of action is capable of being located.

Claim 2 recites "a magnetic field" in ln. 1. It is unclear whether this is referring to the magnetic field claimed in claim 1, or a separate and distinct magnetic field.

Claim 4 recites the limitation "at least one coil" in ln. 2. There is insufficient antecedent basis for this limitation in the claim.

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Claim 4 recites the limitation "the temporal change " in ln. 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 recites "which region of action is situated outside the space surrounding the arrangement having means for generating the magnetic field" in ln. 6-7. However, all space outside the arrangement is considered space which is surrounding the arrangement, which makes the claim language unclear as to where the region of action is capable of being located.

Claim 12 recites the limitation "the gradient magnetic field" in ln. 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 14 recites the limitation "the temporal change" in ln. 2. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-6, 8-11, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kraus, Jr. et al. (US Pat No 6470220 B1) in view of McKinnon (US 6462544 B1).**

Regarding claims 1, 3-6 and 13, Kraus, Jr. teaches an apparatus and method for heating magnetic particles in a target region by generating a magnetic field having a first low magnetic strength region and a second high magnetic strength region which is formed and changing the

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position in space of the sub-regions to change the magnetization of the particles for so long and with such a frequency that the target region is heated, along with means for the acquisition and analysis of signals on the spatial distribution of the particles [col. 13, ll. 9-62 and see claim 1]. However, Kraus fails to specifically teach the region of action situated outside the space surrounding the arrangement having means for generating the magnetic field. McKinnon teaches a magnetic field arrangement [141, Fig. 1] which generates a magnetic field in a region of action which is located outside the space surrounding the arrangement [Fig. 1, patient is located above the arrangement] in order to improve comfort and prevent a claustrophobic effect experienced by the patient [col. 1, ll. 32-50]. Therefore, it would have been obvious to one of ordinary skill in the art to modify the placement of the region of action as taught by Kraus by locating it outside the space surrounding the arrangement having means for generating the magnetic field as taught by McKinnon in order to improve comfort and prevent a claustrophobic effect experienced by the patient.

Regarding claim 2, Kraus, Jr. teaches using a positionally and temporally variable magnetic field to change the position in space of the two sub-zones in the region of action [col. 13, ll. 9-14].

Regarding claims 8 and 9, Kraus, Jr. teaches the arrangement is capable of using two coils arranged concentrically within the other through which current flows in opposite directions of circulation [col. 16, ll. 40-56] or a mix of coils and permanent magnets [col. 14, ll. 41-44].

Regarding claims 10 and 11, McKinnon teaches a housing enclosing the arrangement [141] outside which housing the region of action is situated in front of a side of the housing [Fig. 2] and a table [60].

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Regarding claim 14, Kraus, Jr. teaches that the signals induced in the region of action are received by a coil arrangement [col. 13, ll. 16-18].

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2, 3, 4, 5, 6, 7, 12, 13 and 14 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2 and 4-7 of U.S. Patent No. 7351194. Although the conflicting claims are not identical, they are not patentably distinct from each other because both claim a method and arrangement for influencing magnetic particles in a region of action by generating a magnetic field having first and second sub-zones that are changed in position in space such that the magnetization of the particles changes locally, acquiring and analyzing signals to obtain information on the spatial distribution of the magnetic particles in the region of action, heating the region of action, and shifting the position of the sub-zones via a temporally variable magnetic field superimposed on a gradient magnetic field.



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***Allowable Subject Matter***

Claims 7 and 12 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims and with a proper terminal disclaimer.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 6167313 A                      USPAT   Gray; Bruce Nathaniel et al.   Targeted hysteresis hyperthermia as a method for treating diseased tissue

US 6997863 B2                      USPAT   Handy; Erik S. et al.                      Thermotherapy via targeted delivery of nanoscale magnetic particles

US 6635009 B2                      USPAT   Feucht; Peter                      Magnetic field applicator for heating magnetic substances in biological tissue

US 5658234 A                      USPAT   Dunlavy; John Harold                      Method for treating tumors

US 4662359 A                      USPAT   Gordon; Robert T.   Use of magnetic susceptibility probes in the treatment of cancer

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VICTORIA W. CHEN whose telephone number is (571)272-3356. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Victoria W Chen/  
Examiner, Art Unit 3739

/Roy D. Gibson/  
Primary Examiner, Art Unit 3739